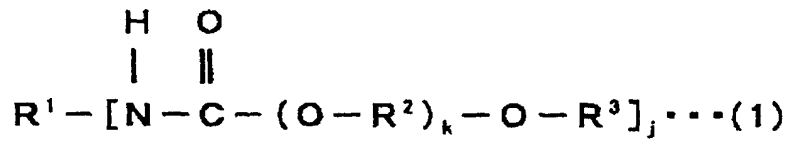
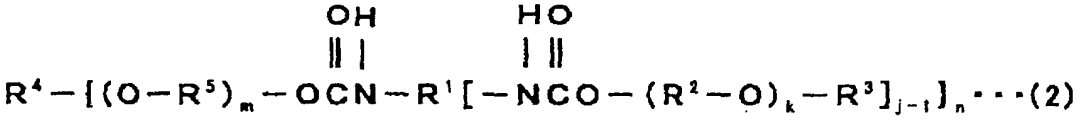
CLAIMS

1. A water-borne coating composition comprising an emulsion resin obtained by emulsion polymerization of an α,β-ethylenically unsaturated monomer mixture comprising not less than 65% by weight of a (meth)acrylate ester whose ester-forming moiety contains 1 or 2 carbon atoms and having an acid value of 3 to 50 and

a urethane compound represented by the general formula (1) or (2):



$$R^1-[N-C-(O-R^2)_k-O-R^3]_j \cdots (1)$$



$$R^4-[(O-R^5)_m-OCN-R^1[-NCO-(R^2-O)_k-R^3]_{j-1}]_n \cdots (2)$$

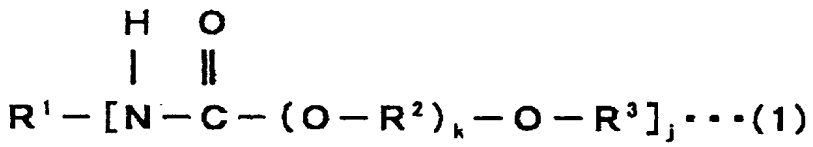
in formulas, R^1, R^2, R^3, R^4 and R^5 may be the same or different and each represents a hydrocarbon group, R^1 represents a hydrocarbon group which may optionally have a urethane bond, R^3 represents a branched or secondary hydrocarbon group, n is a number not less than 2, j is a number not less than 1 in the general formula (1) or a number not less than 2 in the general formula (2) and k and m each is a number within the range of 1 to 500,

wherein the content of said urethane compound is 0.01 to 20% by weight on the solid basis relative to the resin solid in the coating composition.

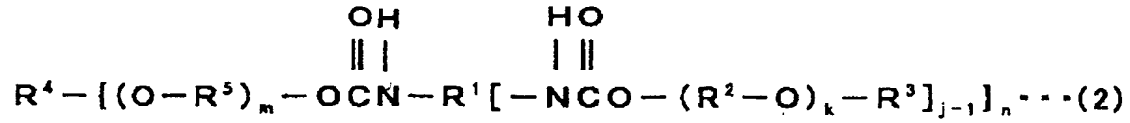
2. A water-borne coating composition comprising a water-borne resin resulting from dissolving or

dispersing a resin having an acid value of 10 to 100, a hydroxyl value of 30 to 200 and a weight average molecular weight of 4,000 to 2,000,000 in an aqueous medium by means of a neutralizing base and

a urethane compound represented by the general formula (1) or (2):



$$R^1-[N-C-(O-R^2)_k-O-R^3]_j \cdots (1)$$



$$R^4-[(O-R^5)_m-OCN-R^1[-NCO-(R^2-O)_k-R^3]_{j-1}]_n \cdots (2)$$

in formulas, R^1, R^2, R^3, R^4 and R^5 may be the same or different and each represents a hydrocarbon group, R^1 represents a hydrocarbon group which may optionally have a urethane bond, R^3 represents a branched or secondary hydrocarbon group, n is a number not less than 2, j is a number not less than 1 in the general formula (1) or a number not less than 2 in the general formula (2) and k and m each is a number within the range of 1 to 500,

wherein the content of said urethane compound is 0.01 to 20% by weight on the solid basis relative to the resin solid in the coating composition.

3. The water-borne coating composition according to Claim 1 or 2,

wherein, in the general formula (1) or (2), R^2 and R^5 may be the same or different and each is an alkylene group containing 2 to 4 carbon atoms or a phenylethylene group.

4. The water-borne coating composition according to any of Claims 1 to 3,

wherein, in said general formula (1) or (2), R^3 is a branched or secondary alkyl group containing 8 to 36 carbon atoms.

5. The water-borne coating composition according to any of Claims 1 to 4,

which comprises a color component.

6. The water-borne coating composition according to any of Claims 1 to 5,

which comprises a polyether polyol having not less than 0.02, on average, of a primary hydroxyl group per molecule, a number average molecular weight of 300 to 3,000 and a water tolerance value of not less than 2.0.

7. The water-borne coating composition according to Claim 6,

wherein said polyether polyol has at least one primary hydroxyl group per molecule and a hydroxyl value of 30 to 700.

8. The water-borne coating composition according to Claim 6 or 7,

wherein said polyether polyol has at least 3 hydroxyl groups per molecule.

9. The water-borne coating composition according to any of Claims 1 to 8,

which comprises a polyester resin and/or an alkyd resin.

10. A method of forming a multilayer coating film comprising: applying a water-borne base coating to an article to be coated and then applying a clear coating thereonto, followed by curing by heating,

wherein said water-borne base coating is the water-borne coating composition according to any of Claims 5 to 9.

11. The method of forming a multilayer coating film according to Claim 10,

wherein said color component is a color pigment and/or a luster color pigment.

12. The method of forming a multilayer coating film according to Claim 10 or 11,

wherein said water-borne base coating has an application viscosity at 25℃ of 500 to 5000 mPa・s as determined on a single cylindrical rotational viscometer at 6 rpm.

13. A multilayer coating film obtainable by the method according to any of Claims 9 to 12.